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ABSTRACT

A study questions recent findings that adolescents spend more time viewing television than listening to music. It is argued that questions about what constitutes music listening and music media, about adequate scales to measure time spent with television and music media, and the age range from which recent samples have been drawn, have led researchers to overestimate adolescent television viewing and underestimate music listening. Data were drawn from a pilot study conducted with 314 ninth and 351 eleventh graders from three high schools. The survey differed from previous assessments of music by (1) measuring amounts of listening in smaller increments; (2) differentiating between music listening via radio and other media; and (3) sensitizing respondents to music listening as a background activity. Results indicated that adolescents were found to spend significantly more time listening to music than viewing television. Results concerned with: (1) the relationship between adolescent sociability and time spent with television and music media; and (2) gender, age or racial/ethnic differences in amount of, and reasons for using, television and music media are also presented. Taken together, these results point to the centrality of music media in adolescence. Future research needs to consider differences within audio media as well as between audio media and audio-only media. (Eight tables of data are included and 28 references are attached.) (Author/MG)

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Music Listening vs. Television Viewing Among Older Adolescents

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Music Listening vs. Television Viewing
Among Older Adolescents

Abstract

This study questions recent findings that adolescents spend more time viewing television than listening to music. We argue that questions about what constitute music media, what constitutes music listening, about adequate scales to measure time spent with television and music media, and the age range from which recent samples have been drawn, have led researchers to overestimate adolescent television viewing and underestimate music listening. Data were drawn from a pilot study conducted with ninth and eleventh graders from three high schools. The survey differed from previous assessments of music use by (1) measuring amounts of listening in smaller increments; (2) differentiating between music listening via radio and other media (e.g., records/tapes, music videos); and (3) sensitizing respondents to music listening as a background activity. Adolescents were found to spend significantly more time listening to music than viewing television. Results concerned with (1) the relationship between adolescent sociability (degree of peer interaction) and time spent with television and music media, and (2) gender, age or racial/ethnic differences in amount of and reasons for using television and music media are also presented.

Music Listening vs. Television Viewing Among Older Adolescents1

Research focusing on adolescents and music media -- radio, records and tapes, music videos -- is relatively new. A recent review of empirical research on the role of popular music in early adolescence (Christenson & Roberts, 1989) cites very few studies published prior to 1980, with the bulk of work appearing since 1985. The vast majority of studies on adolescent media use focus on television, with only secondary attention to newspaper use (typically in studies of political socialization), other reading (typically in studies concerned with television's impact on academic performance), and radio listening. Avery (1979) attributes this emphasis to such factors as the rapid and almost total diffusion of television by the early 1960's, the novelty and vividness of which lead to intense concern with the medium's potential impact on socialization, hence to availability of research funds to study television and its impact.

Indeed, it can be argued that much of the recent attention to music media was also engendered by concern with television. Public discontent with images portrayed in music videos led to increased attention not only to music videos, but also to other aspects of the music industry (eg., song lyrics, record jacket illustrations), and ultimately to the formation of organizations such as the Parents Music Resource Center (PMRC, n.d.), the goal of which is to increase public attention to music media. Concern with adolescent health also increased attention to radio and music. Public health advocates, noting the importance of music to

teenagers, turned to radio in order to reach them with a variety of health-related messages (eg., concerning drugs, safe sex, birth control, smoking cessation, etc., cf. Christenson & Roberts, 1989). This, in turn, stimulated health-related funding of several examinations of adolescent music media use (eg., Bauman, Brown, Bryan, et al., 1988; Bauman, Padgett & Koch, 1989; Brown, Campbell & Fischer, 1986; Brown, et al., in press; Christenson & Roberts, 1989).

The result of such studies has been increased awareness of the importance of music media in adolescent lives. Nevertheless, with few exceptions (eg., Roe, 1987), most scholars continue to view television as holding center-stage in adolescent lives, at least as far at time spent with each medium is concerned.

Studies assessing amount of television and music exposure (either independently or within the same study) typically report that teenagers devote more time to television than to radio/music listening (for reviews see Christenson & Roberts, 1989; Comstock, et.al, 1978; Roberts & Maccoby, 1985). For example, Lyle and Hoffman (1972) found tenth graders listening over 2 hours per day, a figure similar to more recent estimates of between 2 and 2.5 hours of daily teenage listening provided by the Radio Advertising Bureau (1982; 1988), but well below the 3.5 hours of television viewing Lyle and Hoffman reported and typical of Nielsen estimates of adolescent television viewing.

Several recent studies provide increased estimates of amount of music listening, but in each case, television viewing is even

higher. Brown, Campbell and Fischer (1986) found approximately three hours per day of listening and four hours of viewing among 12- to 14-year-olds; both Brown, et al. (in press) and Greenberg, et al. (1986) found samples of young adolescents reporting over five hours of daily listening, but over six hours of viewing! In the same vein, Larson and Kubey's (1983) time sampling procedure (based on having individuals complete a brief activities inventory each time an electronic pager gives a signal) also gives the nod to television. Ninth through twelfth graders reported television use as a primary or secondary activity 10.2% of the times they were signaled and music listening 6.4% of the times they were signaled.

In spite of fairly consistent findings of more television viewing than music listening, however, our personal observations of and conversations with adolescents raised several questions about the results. Informal questioning of a number of teenagers and young adults indicated that they believed they spent more time listening to music than viewing television. Our informants pointed out that "listening to music" included not only radio use, but also records and tapes, and music video (although, it must be admitted that some teens now speak of "watching" a song). They also indicated that much (in some cases, almost all) of their music listening occurred in conjunction with other activities, with music often well in the background. These conversations led us to return to the empirical literature with an eye to uncovering why estimates of viewing might be higher

than estimates of listening. Several possibilities emerged.

First, there is a question about what constitute music media (Christenson and Roberts, 1989). Although radio functions primarily as a music medium for most adolescents, not all music reaches them via radio. Record and tape players, not to mention Walkmen and Diskmen, have become important music channels for most teenagers. Additionally, in the past decade, music videos (whether broadcast or played on VCRs) have also come to serve as important music media. However, many studies, particularly those conducted prior to 1980, do not differentiate between radio and other music channels, and often limit their questions to amount of radio use. Studies that fail to ask about music exposure via non-radio sources are likely to underestimate total music listening.

Second, there is a question about what comprises music listening. Clearly a decision to focus attention on a song constitutes music listening, but so too may a decision to have music playing during some other activity. Music is often (typically?) engaged as a background activity, sometimes secondary, sometimes tertiary, and sometimes unconsciously. Thus, a teenager may be driving to school (primary activity) and chatting with a passenger (secondary activity) hearing music emanating from the radio (tertiary activity) which was left on by a sibling who used the car the previous evening (unconscious activity?). The question, of course, is whether such background "listening" is to be counted as listening and if so, how it is to

be assessed. Given that measures of television use often include viewing that occurs as a secondary activity (see, for example, Bechtel, Achelpohl & Akers, 1972), it seems legitimate to measure music listening in the same way.2 We fear, however, that many studies of music use do not include items that tap listening as a background activity. And given the background nature of much music exposure, even Larson and Kubey's (1983) effort to code secondary activities is at the mercy of how central music was in any given situation. In short, we suspect that most attempts to measure music listening miss much of the background listening that occurs.

Third, we suspect that the way in which both television viewing and music listening has been measured in several recent studies may bias estimates for both media upward -- but to a greater degree for television. For example, Brown, et al. (in press) asked adolescents to mark the <u>whole number</u> (e.g., 0 hrs.; 1 hr; 2 hrs.) which best represented their viewing/listening during each of four sections of the day: before school, after school, early evening, late evening. The procedure of breaking the day into components is employed to help respondents think carefully about their media use. However, the combination of whole hour estimates and day components may lead to overestimates of media use. We believe that teenagers who recall watching or listening less than an hour, even as little as 10-15 minutes, are more likely to mark 1 hour (indicating some exposure) than 0 (indicating no exposure). To the extent that they watch or

listen for a few minutes each hour, then, they could be credited with as much as four hours of viewing/listening when as little as 40 minutes might be more accurate. Moreover, given the background nature of much music listening, we also believe that there is a greater probability that 15 or 20 minutes of incidental music exposure will be overlooked or ignored than that 15 or 20 minutes of viewing will be ignored. Thus, measures that ask respondents to mark numbers, whether recorded in hour (eg., Brown, et.al, in press) or half hour units (eg. Ritchie, Price & Roberts, 1987), run the risk of obtaining overestimates of use because of biasing amounts between 0 and the first unit (whatever it may be) upward. Further, we would anticipate more overestimation of television viewing (because it is more likely to be a primary activity) than of music listening (because it is less likely to be a primary activity).

Finally, most studies of adolescent media use which find more television viewing than music listening tend to sample teenagers from the younger end of the adolescent age spectrum. For example, Brown, Campbell and Fischer (1986) and Brown, et al. (in press) surveyed 12- to 14-year-olds; Lyle and Hoffman measured 12- and 16-year-olds; Greenberg et al. report on 15- and 16-year-olds; and work reported by Christenson and his colleagues focuses on even younger children, from 10 to 12 years old (Christenson & DeBenedittis, 1986; Christenson, Debenedittis & Lindlof, 1985; Christenson & Lindlof, 1983). Given that television viewing peaks near the beginning of adolescence (at

about the time children move from grade school to middle school or to junior high), and that music listening increases across adolescence (see Christenson & Roberts, 1989), studies of media use based on younger samples might well tend to overestimate viewing and underestimate listening among teenagers.3

For all of the preceding reasons, then, we reasoned that the extant literature might be underestimating adolescent music use relative to television viewing. Thus, presuming we could develop measures that tapped small amounts of viewing or listening as small amounts, that assessed music listening as opposed to radio listening, and that sensitized respondents to music listening as a background activity, we hypothesized that older adolescents would devote more time to music than to television. We also expected to replicate earlier findings that music use would increase and television use decrease with age.

A second hypothesis, concerning the relationship between peer interaction and time spent with television and music, is derived from several findings in the literature. Althoug much adolescent music listening is engaged as a solitary activity (Larson & Kubey, 1983), music is also important to many adolescent social settings, and plays a central role in adolescent peer interactions (Dominick, 1971; Lull, 1987; Roe, 1984, 1985, 1987; also see Christenson & Roberts, 1989). Conversely, there is general agreement that television is more of a family medium, usually engaged in a family context and providing more family oriented content that the typical popular

music program (Larson and Kubey, 1983; Larson, Kubey & Colletti, 1989). Thus, we hypothesized that sociability -- the degree of social interaction with other teenagers -- would be positively related to music use, and not related to television use.

In addition to these two hypotheses, we articulated several additional research questions about predictors of music media use. We asked whether using a more sensitive measure of music listening would reveal gender, age, or racial/ethnic differences in amount listening, and whether it would reveal gender or age differences in reasons for music listening.

Method

The data reported here were obtained from a pilot study conducted to develop and refine questions for a projected future survey of adolescent media use. Students in the ninth (n=314) and eleventh (n=351) grades in one private and two public high schools in the San Francisco Bay Area participated. The resulting sample tended to be largely upper middle class (60% of fathers and 46% of mothers with college degrees), caucasian (60% white, 12% Hispanic, 11% Asian, 3% Black, and 14% other or unknown), and about evenly split between males (52%) and females.

Students responded to an extensive paper-and-pencil questionnaire containing items about family and home environment, television viewing, music listening and reading habits, and school and other social activities. Questionnaires were administered to groups of students in classrooms or multi-purpose rooms. Survey administrators read the questions and responses

aloud; students had the option of following the administrator or working at their own pace.

Measures. This analysis is limited to examination of time spent with television and the various music media, and of expressed reasons for using television and music media. These variables are analyzed as a function of age and school grade, gender, race/ethnicity, and sociability (amount of social interaction with other teenagers).

To obtain an estimate of time spent with television, students were asked how much they watched television on a "typical school day." They responded by marking the appropriate number on a scale presenting quarter-hour increments up to one hour, then half hour increments up to ten hours. They then gave time estimates for each of the other media (e.g., reading, listening to radio, listening to records/tapes/CDs, watching music videos) by filling in a blank. This open-ended format, immediately following a model of 15 minute intervals, elicited many estimates in 5 - 10 minute increments (i.e. 10 minutes, 15 minutes, 20 minutes). In other words, some respondents indicated they spent a few minutes with one or another medium, but much less than the half or full hour bottom estimate demanded by many previous measures.

In addition to these initial time estimates, after answering several questions about music preferences and reasons for listening, students were asked to estimate time spent listening to all music media. The item was worded as follows:

> Now that you have thought some about your music listening, give us another estimate of how much time you spend on a school day listening to music. Include the time you do nothing but listen, and the time that music is on in the background when you work, do homework, visit, are in a car, and so forth. And be sure to include time with the radio, records, tapes, and even MTV.

Responses to this item were used as a separate estimate of music media use (independent of estimates for each individual medium) called "all music" or "music in general."

A sociability index was created by summing five items about peer relationships and activities. Two items asked students to indicate on four point scales how much each of the following statements was true for them: "Some teens find it hard to make friends;" and "Some teens have a lot of friends." Three additional items asked how much time students spent "hanging out with friends," on the telephone, and going to parties (each reduced to four point scales). A confirmatory factor analysis performed on these items yielded a single "sociability" factor (eigenvalue = 1.45, R2`= .29, Chrobach´s alpha = .62). Scores ranged from 5 to 20, and the distribution was skewed left with a mean of 14.3 (sd = 3.3).

Because emotional uses of media have been shown to play a central role in adolescent media behavior, we also examined responses to a set of emotion-related motivations for viewing and listening. Nine statements focusing on emotional and escape/fantasy motivations for television viewing and music listening were factor analyzed by gender and grade level. The items included such statements as: I watch television when I´m

sad; I watch television to take my mind of my problems; I listen to music when I'm lonely; I listen to music to escape from my family; etc. Students responded to the television items on a five-point scale (never to always), and to the music items on a four-point scale (not like me/a little like me/somewhat like me/a lot like me). Because the phrasing of the questions and the response options differed for the two media, we make no comparisons between media; rather, we consider gender differences and grade level differences for music and for television separately.

Results

The results of this study address three questions about adolescent media use. First, how do adolescents differ in amount of time spent with television and with music media? Second, how does sociability affect time spent with television and music media? Third, how do adolescents' reasons for using television and music media vary between males and females and between age groups?

Time spent with television and music media. The hypothesis that older adolescents spend more time with music media than with television was supported. Table 1 summarizes amount of adolescents' television and music media use in minutes. As predicted, adolescents reported spending more time listening to all music (208 minutes) than watching television (136 minutes), a difference of over an hour on a typical school day ($t = 11.9$, $df = 600$, $p<.001$). Further, as shown in Table 2, this finding is

consistent within grade and gender groups.

Comparisons by gender and by grade level for time spent with television and music media are presented in Table 3. As expected, girls reported spending significantly more time than boys listening to radio ($p<.001$) and listening to music in general ($p<.001$), a finding consistent with previous research (cf. Christenson & Roberts, 1989): However, boys reported more television viewing than girls ($p<.05$), a finding inconsistent with earlier studies of adolescent media use (cf. Comstock, et al., 1978).

Our expectation that television use would decrease and music listening increase with age was partially supported. As Table 3 illustrates, ninth graders reported more television viewing than eleventh graders ($p<.01$). However, although eleventh graders spent significantly more time listening to records/tapes than did ninth graders ($p<.05$), the difference favoring older students for all music listening was trivial. Moreover, ninth graders showed a slight edge in radio listening and watched significantly more MTV ($p<.001$). These results are consistent with earlier findings that television viewing decreases through adolescence. However, the case for increased music listening among older adolescents is less compelling.

Table 4 presents time spent with television and music media by race/ethnicity. Black and Hispanic adolescents reported significantly more television viewing and more music television (MTV) viewing than either white or Asian teenagers. Blacks also

spent more time than Asian adolescents listening to records and tapes, but did not differ significantly from Hispanic or white teenagers for this activity. Surprisingly, no significant differences were found between groups either for time spent with radio or for all music listening.

Sociability and use of television and music media. Table 5 reports correlations among media use variables and sociability. The results indicate that, generally, different kinds of media use are positively related; teenagers who listen to a lot of radio are also likely to listen to records. This is consistent with previous findings for adolescent media use -- that is, that use of different media is complementary, not competitive.

Expectations of a positive relationship between sociability and music listening in general, and of no relationship between sociability and television viewing, were also confirmed. Music listening and sociability were positively related ($r = .35$, $p<.001$), while television viewing and sociability were not related ($r = -.01$). For a more detailed analysis of these relationships, hierarchical regressions on time spent with television and music were computed controlling for age, sex, academic achievement (self reported)4 and socioeconomic status (father's education). As shown in Table 6, sociability accounted for a substantial and significant proportion of the variance in music listening ($R2$ change $= .09$, $p<.001$), but did not predict television viewing. No interactions between sex and sociability were significant.

Emotional motivations for using television and music media. The factors for music and television use are presented by gender in Table 7. With respect to emotional uses of music media, the factor analysis suggests that boys' and girls' reasons for listening to music are quite similar. For music, four items loaded well on the single factor for boys (eigenvalue = 2.8, R2 = .31), and an additional item loaded on the factor for girls (eigenvalue = 2.9, R2 = .32). A Spearman's rank correlation coefficient of the factor loadings between genders was strong and significant (rho = .93, $p<.001$), further suggesting that, with respect to emotional uses, the underlying reason for listening to music is the same for boys and girls. Based on the factor loadings (see Table 7), we interpret this underlying reason to represent mood change, specifically, relief of negative emotions.

Given the finding that girls' and boys' emotional motivation to listen to music is fundamentally the same, we questioned whether this emotional reason is more common for girls' music listening than for boys'. To address this question, data from boys and girls were factored together. Six items loaded on a single factor (eigenvalue = 2.9, R2 = .32, alpha = .79): I listen to music when I'm sad, angry, lonely, bored, to take my mind off my problems, and to escape from my family. Responses to these items were summed to create a score of emotional music use. A test of mean differences between girls' and boys' scores revealed that girls differ significantly from boys ($t = 5.9$, $p<.001$, $df = 616$), suggesting that girls are, indeed, more likely

than boys to use music media for moderating emotional needs.

For television, the factor analysis by gender suggested that girls' and boys' reasons for viewing are quite different (see Table 7). For girls, six items loaded on the single factor (eigenvalue = 3.3, R2 = .37); however, three of the same and three different items loaded on the factor for boys (eigenvalue = 3.2, R2 = .35). Moreover, the correlation between the factor loadings for boys and girls was not significant (rho = .15), suggesting that, at least on the emotional dimension, the underlying reason for viewing television is different for boys and girls.

A similar analysis compared ninth and eleventh graders' reasons for using television and music media showed the two age groups to be similar for both media. Table 8 presents the factors for music and television use by grade level.

For music, five items loaded on the factor for ninth graders (eigenvalue = 2.9, R2 = .33); one additional item loaded on the factor for eleventh graders (eigenvalue = 2.9, R2 = .32). The correlation between the factor loadings across grades was strong and significant (rho = .8, $p<.01$), suggesting that the underlying reason for listening to music is the same among younger and older adolescents. That is, with respect to emotional uses of music media, all adolescents listen to music to relieve (or indulge?) negative emotions such as anger, sadness and loneliness.

For television, six items loaded on the factor for ninth graders, and five of the six items loaded for eleventh graders

(for both factors eigenvalue = 3.2, R2 = .36). The correlation between the factor loadings across grades was also strong and significant (rho = .95, $p<.001$), suggesting that the underlying reason for television viewing is the same among all adolescents. From the factor loadings (see Table 8) we conclude that adolescents' reason for watching television combines relief of negative emotions with opportunity for escape or fantasy.

Discussion

To the extent that time spent with a medium is an indicator of importance, the results of this study give empirical support to Roe's contention "that it is music, not television, that is the most important medium for adolescents" (1987, p. 216). By focusing on senior high school students, sensitizing them to think about music listening as a background activity, and developing measures that elicited amount of use in relatively small units of time, we demonstrated that, contrary to results of a number of previous studies, teenagers claim significantly more music listening than television viewing -- over an hour a day more. This finding held across age and gender groups, the magnitude of the difference listening and viewing varying from 26 minutes (for 9th grade boys) to almost two hours (for 11th grade girls).

Our results confirm earlier findings that, during adolescence, television viewing decreases with age, but fail to replicate previous reports of a significant increase in music listening with age. Although eleventh graders reported

significantly more listening to records and tapes, they held only a small edge in listening to "all music," while seventh graders reported slightly more daily radio listening and significantly more MTV viewing. It seems reasonable that younger teenagers, who watch more television in general, should watch more MTV. It also seems plausible that eleventh graders would be more likely than ninth graders to own record and tape players and to have more disposable cash with which to purchase records and tapes. In addition, several studies indicate that differentiation in music taste increases with age (see Christenson & Roberts, 1989), and more focused preferences might be more readily satisfied via recordings that enable concentration on one artist or one type of music. In the same vein, younger teenagers are more interested in popular, "Top 40" radio shows, perhaps because of more ecumenical tastes, perhaps because of the social implications of knowing "what is hot" at any given time. At minimum, these findings suggest that age trends in the use of different music media warrant careful attention. Future research needs to consider differences within audio media (e.g., radio use vs recordings) as well as between audio-visual media (e.g., MTV) and audio-only media (e.g., radio, records, tapes).

Although we found the expected edge in music listening favoring girls, the results for television viewing were reversed from previous findings. That is, boys reported significantly more television viewing than girls. This gender difference held for both ninth and eleventh graders. We have no explanation for

this unexpected finding.

In line with earlier studies, we found that Black and Hispanic teenagers devote more time to television than do white teenagers, but failed to confirm that they spend more time listening to all music. Indeed, the only differences in music media use consisted of Asian students listening to records and tapes less than Black students and watching MTV less than either Black or Hispanic students, and white students watching MTV less than Black students. The MTV difference, of course, is consistent with the generally heavier TV viewing reported by Black and Hispanic teenagers.

The prediction that sociability would be positively related to music listening and unrelated to television viewing was supported. Scores on the sociability index correlated significantly with each of the four measures of music listening. After controlling for age, sex, self-reported academic achievement, and SES, sociability strongly predicted music listening and was not related to television viewing. Clearly, teenagers who interact with their peers more, report greater music listening. There seems to be little reason to doubt that popular music is the currency of adolescent social exchange (cf. Frith, 1981; Christenson & Roberts, 1989; Clarke, 1973; Lull, 1987; Roe, 1987).

Finally, we examined the emotional dimension of teenage music listening and television viewing. Results indicate that boys and girls listen to music for the same emotional reasons,

although girls report more such use than boys. Conversely, emotional reasons for viewing television differ between boys and girls. In other words, boys and girls are similar in their emotional motivations for music listening, but not in their emotional motivations for television viewing. The same analysis performed by grade level revealed that ninth and eleventh graders are similar in their motivations for music listening and for television viewing.

Taken together, these results point to the centrality of music media in adolescence. It is clear that teenagers spend a great deal of time listening to music, more it seems than they spend viewing television. It is also clear that regardless of gender, age, ethnicity, music plays an important role in their social lives and in their emotional lives. Indeed, it is difficult to conceive of what youth culture would be in the absence of popular music, and just as difficult to think about what popular music would be in the absence of youth culture.

Footnotes

1. The Carnegie Council on Adolescent Development provided partial funding for this study.

2. This, of course, sidesteps the issue of how far in the background music would have to be before "listening" ceases. One possible test might be to measure when cessation of music is no longer noted by the "listener."

3. It should also be noted that samples of adolescents representative of the U.S. population are almost non-existent in the literature (the Nielsen, Radio Advertising Bureau, and Newspaper Advertising Bureau samples are exceptions, but they are plagued with many of the other problems we have already mentioned). Thus, another explanation for variations in the times estimates may be that amount of teenage viewing and listening varies depending on the part of the country.

4. Dornbusch, et al, 1987, report a correlation of .76 (n=1,146) between self reported grades and official grade point averages. They provide a discussion of self reported grades as indicators of academic achievement.

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Table 1

Adolescents' Time Spent with Various Media on a Typical School Day (in Minutes) (N=665)

	Mean	SD	Median
Television	136	97	120
Radio	101	99	60
Records/Tapes	87	87	60
MTV	29	50	0
All Music[a]	208	127	180

[a]All Music is not a sum of radio, records/tapes, and MTV. Respondents were asked to estimate how much time they spend on a school day listening to all music media, including the time they do nothing but listen, and the time that music is on in the background when they work, do homework, visit, are in a car, and so forth.

Table 2

Mean Differences in Amount of Television Viewing and All Music Listening by Gender and by Grade Level

Gender	Grade	Television	All Music	t[a]	df
Female	9	136	230	7.5***	144
	11	112	227	8.5***	139
Male	9	153	179	2.2*	140
	11	136	200	5.7***	173

[a]All tests were two-tailed; *p<.05. **p<.01. ***p<.001.

Table 3

Minutes Spent with Various Media by Gender and Grade Level

		Gender			Grade		
		Female	Male	t[a]	9	11	t
Television	Mean	127	145	2.27*	147	127	2.56**
	(SD)	(98)	(96)		(97)	(96)	
Radio		120	83	-4.77***	106	96	
		(107)	(88)		(100)	(99)	
Records/Tapes		87	86		79	93	-2.04*
		(86)	(88)		(77)	(94)	
MTV		28	31		37	22	3.76***
		(44)	(55)		(56)	(42)	
All Music		227	190	-3.6***	204	211	
		(135)	(118)		(125)	(129)	
n		317	347		314	351	

[a]All tests were two-tailed; *p<.05. **p<.01. ***p<.001.

Table 4

Minutes Spent with Various Media by Race/Ethnicity

		Race/Ethnicity[a]			
		Asian	Black	Hispanic	White
Television	Mean	132_{ab}	199_{c}	181_{bc}	119_{a}
	(SD)	(87)	(115)	(100)	(91)
Radio		105	117	110	91
		(109)	(115)	(110)	(89)
Records/Tapes		58_{a}	108_{b}	102_{ab}	85_{ab}
		(72)	(104)	(94)	(81)
MTV		22_{a}	54_{c}	53_{bc}	24_{ab}
		(39)	(71)	(68)	(46)
All Music		179	235	234	205
		(134)	(149)	(135)	(124)
n		76	17	81	401

[a]All post-hoc comparisons are adjusted for unequal N and use the Scheffe test. Groups with different subscripts differ significantly at $p<.05$.

Table 5

Pearson Correlations Among Media Use Variables and Sociability

	TV	Radio	Records/ Tapes	MTV	All Music	Sociability
TV	1.0	.06	.05	.32***	.09**	-.01
Radio		1.0	.24***	.14***	.46***	.12**
Records/Tapes			1.0	.25***	.52***	.30***
MTV				1.0	.24***	.20***
All Music					1.0	.35***
Sociability						1.0

*p<.05. **p<.01. ***p<.001.

Table 6

Comparison of Predictors of Television and Music Use with Hierarchical Regression Analyses

		Television		Music	
Step	Variables	B	ΔR^2	B	ΔR^2
1	Age	-.5		.25	
	Sex	-15.4		42.0***	
	Academic Achievement	-11.9***		-15.3***	
	SES	-14.6***	.14***	-.2	.06***
2	Sociability	-.9	.0	11.8***	.09***

*p<.05. **p<.01. ***p<.001.

Table 7

Factor Analysis of Reasons for Using Music and Television by Gender

	Music Factor Loadings		TV Factor Loadings	
Item[a]	Girls	Boys	Girls	Boys
Sad	.71*	.72*	.61*	.74*
Angry	.65*	.68*	.63*	.60*
Lonely	.59*	.66*	.42*	.67*
Escape from family	.51*	.53*	.18	.56*
Take mind off problems	.50*	.38	.46*	.63*
Bored	.38	.29	.55*	.18
Relax	.29	.08	.50*	.21
Because it's exciting	.25	.22	.37	.16
Pretend somewhere else	.06	.28	.14	.44*

Note: The factor analysis employed principal axis factor method using varimax rotation (* = A cutoff value of 0.4 was used to indicate items that loaded on a single factor). [a]Students responded to statements such as "I watch TV when I'm sad; I listen to music to pretend I'm somewhere else."

Table 8

Factor Analysis of Reasons for Using Music and Television by Grade Level

	Music Factor Loadings		TV Factor Loadings	
	Grade		Grade	
Item[a]	9	11	9	11
Sad	.68*	.65*	.70*	.68*
Angry	.67*	.50*	.55*	.58*
Lonely	.61*	.48*	.49*	.38
Escape from family	.51*	.51*	.57*	.49*
Take mind off problems	.44*	.60*	.67*	.69*
Relax	.37	.41*	.22	.29
Bored	.32	.13	.11	.14
Because it's exciting	.31	.10	.21	.24
Pretend somewhere else	.02	.35	.48*	.47*

Note: The factor analysis employed principal axis factor method using varimax rotation (* = A cutoff value of 0.4 was used to indicate items that loaded on a single factor). [a]Students responded to statements such as "I watch TV when I'm sad; I listen to music to pretend I'm somewhere else."